# FOOD BALANCE SHEETS

1979-81 AVERAGE

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#### FOOD BALANCE SHEETS - 1979-81 AVERAGE

#### FOREWORL

This volume is a follow-up of "Provisional Food Balance Sheets 1972-74 Average" and "Food Balance Sheets 1975-77 Average and Per Caput Food Supplies 1961-65 Average, 1967 to 1977" published in 1977 and 1980 respectively which were processed from the FAO's Agricultural Data Bank known as the Interlinked Computerized Storage and Processing System of Food and Agricultural Commodity Data (ICS). The present volume, unlike the previous ones, shows food balance sheets in a standardized format presenting statistical information for processed commodities, where possible, in their primary commodity equivalent.

The ICS currently includes Supply/Utilization Accounts (SUA's) for almost 300 primary food and agricultural and fishery commodities and about 380 processed products derived therefrom for almost all the countries and territories in the world from 1961 onwards, together with other related statistical series. These SUA's, which represent the core of FAO's Agricultural Data Bank, contain the estimates of supplies from different sources matched against estimates of different forms of utilization of each product and the input series which are regularly updated and, in addition, revised in the light of any new information. Accordingly, the food balance sheets derived from the SUA's of food products are consistent internally and also with the other outputs of ICS, annual basic data series and derived statistics. What is equally important is that computerization has enabled the Organization to update and revise simultaneously the entire series of food balance sheets. This has resulted in considerable reduction of the time-lag in the publication of the food balance sheets and facilitated meeting the demand for food balance sheets' data series by users both inside and outside FAO. In FAO's work, these data are required to meet the requests of its statutory bodies to keep the world's food and nutrition situation under constant review and to update FAO's analytical work in the field of food and population and to provide the statistical base for the projections of demand for agricultural commodities and other assessment studies.

The food balance sheets for 146 countries and territories included in this document have been extracted from individual SUA series prepared on a calendar-year basis. In constructing the SUA's and the food balance sheets derived therefrom, both official and unofficial data available in the Statistics Division and other Units concerned in FAO have been used and missing data have been estimated on the basis of surveys and other information as well as technical expertise available in FAO. Comments on the previously published average food balance sheets and suggestions for their improvement received from countries have also been taken into account in preparing this new set of standardized food balance sheets.

The food balances reflect the best available information on the food situation prevailing in the individual countries during the years shown. The presentation also allows for inter-country comparisions of dietary and trade patterns.

In addition to the food balance sheets for individual countries, a table is included showing daily per caput food supplies (total as well as its vegetable or animal origin) in terms of calories, protein and fat, for the world, continents and economic classes and regions. The figures in this table are based on information for more countries than are included in the publication, and cover 100% of the population in both developed and developing countries. The additional information in its food balance statistics. However, tentative assessments were made for these countries and they are available on request from the Basic Data Unit of FAO's

It is hoped that various organizations, planners and researchers concerned with the assessment of the food and nutrition situation will find this new volume of food balance sheets useful in their work. Additionally, the issuance of this present volume is intended to stimulate the interest of member countries in the construction of food balance sheets by their statistical organizations thus leading to further intensification of dialogues with FAO on the harmonization of FAO data series on food and agriculture with the statistical records of member countries.

Leroy Quance
Director
Statistics Division

## INTRODUCTION

The present document continues the series of FAO's periodical publications of food balance sheets for specified countries. In 1949, food balance sheets were published for 41 countries covering the period 1934-38 and 1947/48, with a supplement in 1950 giving 1948/49 data for 36 countries. The Handbook for the Preparation of Food Balance Sheets was also published in 1949. In 1955, food balance sheets giving 1950/51 and 1951/52 data were published for 33 countries, together with revised data for the 1934-38 period. Supplements were issued in 1956 giving 1952/53 data for 30 countries, and in 1957 giving 1953/54 and 1954/55 data for 29 countries.

For methodological reasons, it was decided in 1957 to discontinue the publication of annual food balance sheets and to publish instead three-year average food balance sheets. The first set of which, for 30 countries, was issued in 1958, covering the period 1954-56; the second for 43 countries in 1963, covering the period 1957-59; the third for 63 countries in 1966, covering the period 1960-62 and the fourth in 1971 for 132 countries, covering the period 1964-66. In 1960, time series covering the periods 1935-39, 1948-50, 1951-53 and 1954-56 were published showing data for 32 countries on production, available supply, feed and manufacture, as well as per caput food supplies available for human consumption in quantity, caloric value and protein and fat content.

In recent years, the geographic coverage of FAO's regular work on food balance sheets has been progressively extended to meet the statistical needs of FAO's contribution to the review and appraisal studies for the Second UN Development Decade, of FAO's Agricultural Commodity Projections and of work initiated under FAO's Perspective Study of World Agricultural Development and Agriculture: Towards 2000. This has led to the establishment of the Interlinked Computerized Storage and Processing System of Food and Agricultural Commodity Data (ICS) covering for about 200 countries and territories, from 1961 onwards, some 300 primary crop, livestock and fishery commodities and about 380 processed products derived therefrom generally up to the first stage of processing for crops and fishery products and to the second stage of processing for livestock products. Accordingly, it was possible to publish in 1977 provisional 1972-74 average food balance sheets for 162 developed and developing countries. For the first time, tables were included showing for all countries, continents, economic classes and regions and the world, long-term series of per caput food supplies in terms of calories, protein and fat by major food groups for the average period 1961-63 and individual years 1964 to 1974. The following issue included 1975-77 average food balance sheets for 164 countries, together with long-term series of per caput food supplies and tables showing the conversion ratios applied and the various assumptions made in arriving at the published figures. The present publication includes standardized food balance sheets for the three-year-average period 1979-81 for 146 countries. In addition to the special publications of complete food balance sheets, FAO publishes in its Production Yearbook, information on per caput food supply in terms of calories, protein, fat and selected minerals and vitamins.

Food balance sheets were the main source of data used in the assessment and appraisal of the world food situation which FAO made for the pre-war period in its first World Food Survey (1946), for the early post-war period in the Second World Food Survey (1952), for the late fifties in its Third World Food Survey (1963), and for the early seventies in its Fourth World Food Survey (1977), and more recently in the preparation of the Fifth World Food Survey. For the purposes of these surveys, food balance sheets were prepared for many more countries than had been included in the regular publications referred to earlier. Thus, the first World Food Survey was based on pre-war data for 70 countries,

representing about 90% of the world population at that time, and the Fourth World Food Survey included 162 countries covering more than 99% of the world population and was based on 1972-74 data. Food balance sheets also provided a major source of information for establishing the statistical base of FAO's Indicative World Plan for Agricultural Development, for which purpose 1961-63 average food balance sheets were prepared for all the 64 developing countries included in the study.

## FOOD BALANCE SHEETS - WHAT THEY ARE AND HOW THEY CAN SERVE

A food balance sheet presents a comprehensive picture of the pattern of a country's food supply during a specified reference period. The food balance sheet shows for each food item - i.e. each primary commodity and a number of processed commodities potentially available for human consumption - the sources of supply and its utilization. The total quantity of foodstuffs produced in a country added to the total quantity imported and adjusted to any change in stocks that may have occurred since the beginning of the reference period gives the supply available during that period. On the utilization side a distinction is made between the quantities exported, fed to livestock, used for seed, put to manufacture for food use and non-food uses, losses during storage and transportation, and food supplies available for human consumption. The per caput supply of each such food item available for human consumption is then obtained by dividing the respective quantity by the related data on the population actually partaking of it. Data on per caput food supplies are expressed in terms of quantity and - by applying appropriate food composition factors for all primary and processed products - also in terms of caloric value and protein and fat content.

Annual food balance sheets tabulated regularly over a period of years will show the trends in the overall national food supply, disclose changes that may have taken place in the types of food consumed, i.e., the pattern of the diet, and reveal the extent to which the food supply of the country, as a whole, is adequate in relation to nutritional requirements.

By bringing together the larger part of the food and agricultural data in each country, food balance sheets also serve in the detailed examination and appraisal of the food and agricultural situation in a country. A comparision of the quantities of food available for human country depends upon imported will indicate the extent to which a food crops used for feeding livestock in relation to total crop production animal feed which is useful to know when analyzing livestock policies or element for the projection of food demand, together with other elements, expenditure and of population.

It is important to note that the quantities of food available for human consumption, as estimated in the food balance sheet, relate simply during distribution and processing is taken into consideration as an element in the food balance sheet.

Post-harvest losses in most of the countries are considered to be substantial due to the fact that most of the grain production is retained on the farm so as to provide sufficient quantities to last from one harvest to the next. Farm storage facilities in most of the developing countries are usually primitive and inadequately protected from the natural competitors of man for food.

The losses tend to become even more serious in countries where the agricultural products reach the consumers in urban areas after passing through several marketing stages. In fact, one of the major causes of food waste in some developing countries is the lack of adequate marketing systems and organization. Much food remains unsold because of the imbalances of supply and demand. This is particularly true of perishable foods, such as fresh fruit and vegetables.

Technical losses occurring during the transformation of primary commodities into processed products are taken into account in the assessment of respective extraction/conversion rates.

However, the amount of food actually consumed may be lower than the quantity shown in the food balance sheet depending on the degree of losses of edible food and nutrients in the household, e.g. during storage, in preparation and cooking (which affect vitamins and minerals to a greater extent than they do calories, protein and fat), as plate-waste or quantities fed to domestic animals and pets, or thrown away.

Food balance sheets do not give any indication of the differences that may exist in the diet consumed by different population groups, e.g., different socio-economic groups, ecological zones and geographical areas within a country; neither do they provide information on seasonal variations in the total food supply. To obtain a complete picture, food consumption surveys showing the distribution of the national food supply at various times of the year among different groups of the population should be conducted. In fact, the two sets of data are complementary. There are commodities for which a production estimate could best be based on estimated consumption as obtained from food consumption surveys. On the other hand, there are commodities for which production, trade and utilization statistics could give a better nationwide consumption estimate than the data derived from food consumption surveys.

### ACCURACY OF FOOD BALANCE SHEETS

The accuracy of food balance sheets, which are in essence derived statistics, is of course dependent on the reliability of the underlying basic statistics of population, supply and utilization of foods and of their nutritive value. These vary a great deal between countries, both in terms of coverage as well as in accuracy. In fact, there are many gaps particularly in the statistics of utilization for non-food purposes, such as feed, seed and manufacture, as well as in those of farm, commercial and even government stocks. To overcome the former difficulty, estimates were prepared in FAO while the effect of the absence of statistics on stocks is considered to be reduced by preparing the food balance sheets as an average for a three-year period. But even the production and trade statistics on which the accuracy of food balance sheets depends most are, in many cases, subject to improvement through the organization of appropriate statistical field surveys. Furthermore, there are very few surveys so far known on which to base sound figures for waste, and in some cases also these are subject to significant margins of error. In most cases, the assumptions for waste used in food balance sheets are based on expert opinion obtained in the countries.

The available statistics being what they are, considerable use had to be made in the preparation of the food balance sheets of evaluation techniques provided by consistency checks. Internal consistency checks are inherent in the accounting technique of the food balance sheet itself. Even more important are external consistency checks based on related supplementary information, such as the results of surveys conducted in various parts of the world as well as relevant technical, nutritional and economic expertise.

It is believed that the food balance sheets so prepared, while often being far from satisfactory in the proper statistical sense, provide an approximate picture of the overall food situation in the countries which may be used for economic and nutritional studies, the preparation of development plans and the formulation of related projects, as in fact is

The data evaluation and consistency checks undertaken within the framework of the supply/utilization accounts for the preparation of food balance sheets in fact revealed a number of gaps and inconsistencies in the underlying basic statistics for many, particularly developing, countries. Although these have been remedied by estimates and/or adjustments in the present food balance sheets for the purpose of providing a plausible picture of the food supply situation, the problems encountered should guide FAO's promotional and developmental efforts in the countries concerned to improve the coverage and quality of the basic statistics.

## CONCEPTS AND DEFINITIONS USED IN FOOD BALANCE SHEETS

## Commodity Coverage

As already indicated, all potentially edible commodities should, in principle, be taken into account in preparing food balance sheets regardless of whether they are actually eaten or used for non-food purposes. This principle is kept in mind in FAO's current work on food balance sheets. For practical purposes, therefore, a pragmatic list of commodities will have to be adopted. In the past, the commodity list included primary and processed products. However, taking into account the fact that statistical information for processed commodities is mostly limited to trade in the ICS Agricultural Data Bank, the commodity list in this publication has been generally confined to primary commodities except for sugar, oils and fats and beverages. Whenever possible trade in processed commodities is expressed in the originating primary commodity equivalent and these figures are shown separately in the column "Processed Trade (E-I)". Two criteria have been chosen for generally presenting the figures for a particular commodity in the food balance sheets: (i) the product is a primary commodity, and (ii) the product is a processed commodity for which - because of its composite nature - it was impossible to give the primary commodity equivalent. Clearly, information is not shown for commodities for which total domestic supply is less than half of the reporting unit. A list of about 300 commodities and their classification into major food groups, prepared by FAO for food-balance-sheet purposes, is shown at the end of this Note.

## Supply and Utilization Elements

### (i) Production

In principle, production figures relate to the total domestic production whether inside or outside the agricultural sector, i.e., it includes non-commercial production and production from kitchen gardens. Unless otherwise indicated, production is reported at the farm level for crop and livestock products (i.e., in the case of crops, excluding harvesting losses) and in terms of live weight for fish items (i.e., the actual ex-water weight at the time of the catch). As a general rule, all data on meat are expressed in terms of carcass weight. Usually, production data relate to production during the reference period. Where it primary commodity, the data are shown at the processed commodity level. In this case, the production is an estimate made for the purposes of avoiding double counting and allowing for food trade. Therefore, the figures shown for PRODUCTION, DOMESTIC SUPPLY and DOMESTIC UTILIZATION of these commodities may not represent the "Total" for the country.

### (ii) Imports

In principle, this covers all movements into the country of the commodity in question. It includes commercial trade, food aid granted on specific terms, donated quantities and estimates of unrecorded trade. As a general rule, figures are reported in terms of net weight, i.e., excluding the weight of the container.

### (iii) Stock Changes

In principle, this heading comprises changes in stocks occurring during the reference period at all levels between the production and the retail levels, i.e., it comprises changes in government stocks, in stocks with manufacturers, importers, exporters, other wholesale and retail merchants, transport and storage enterprises and in stocks on farms. In actual fact, however, the information available often relates only to stocks held by governments and even these are not available for a number of countries and important commodities. For this reason food balance sheets are usually prepared as an average of several years since this is believed to reduce the degree of inaccuracy contributed by the absence of information on stocks. In the absence of information on opening and closing stocks changes in stocks are also used for shifting production from the calendar year in which it is harvested to the year in which it is consumed. Net decreases in stocks are generally indicated by the sign "-". No sign denotes net increases.

#### (iv) Exports

In principle, this covers all movements out of the country of the commodity in question during the reference period. Remarks made above under Imports apply by analogy.

## (v) Processed Trade (E-I)

In principle, this heading covers net trade (exports minus imports) of processed commodities expressed in their primary commodity equivalent.

#### (vi) Domestic Supply

There are various ways of defining SUPPLY and, in fact, various concepts are in use. The elements involved are production, imports, exports and changes in stocks (increases or decreases). There is no doubt that production, imports and decreases in stocks are genuine supply elements. Exports and increases in stocks might, however, be considered as utilization elements. Accordingly, the following are possible ways of defining SUPPLY:

- (a) Production + imports + decrease in stocks = total supply.
- (b) Production + imports + changes in stocks (decrease or increase) = supply available for export and domestic utilization.
- (c) Production + imports exports + changes in stocks
   (decrease or increase) = supply for domestic utilization.
  This concept is used also in this document.

#### (vii) Feed

This comprises the amounts of the commodity in question and of edible commodities derived therefrom not shown separately in the food balance sheet fed to livestock during the reference period, whether domestically produced or imported. Since compound feedingstuffs are not shown separately, quantities of the commodity in question which have been processed into compounds are, in principle, included.

## (viii) Seed

In principle, this comprises all amounts of the commodity in question used during the reference period for reproductive purposes, such as seed, sugar cane planted, eggs for hatching and fish for bait, whether available, seed figures have been estimated either as a percentage of supply, (e.g. eggs for hatching) or by multiplying a seed rate with the the crop is harvested green (e.g. cereals for direct feed or silage, green harvested green.

## (ix) Manufacture

A distinction can be made between manufacture for food and manufacture for non-food use. The amounts of the commodity in question used during the reference period for manufacture of processed commodities or which could not be converted back to their originating primary commodities or which are part of a separate food group (e.g. sugar, fats and oils, the commodity in question used for manufacture FOR FOOD. Quantities of oil for soap, are shown under MANUFACTURE FOR NON-FOOD USE. The processed shown under NUTS AND OILSEEDS, the repective oil is shown under the group under OILS AND FATS; similarly, skim milk is in the group MILK, while butter is

## (x) Waste

This comprises the amounts of the commodity in question and of the commodities derived therefrom not further pursued in the food balance sheet, lost through waste at all stages between the level at which production is recorded and the household, i.e. waste in processing, harvested stages are excluded (see note on "Production"). Waste from both also excluded. Technical losses occurring during the pre-harvest and edible and inedible parts of the commodity occurring in the household is primary commodities into processed products are taken into account in the assessment of respective extraction/conversion rates.

## (xi) Food

This comprises the amounts of the commodity in question and of any commodities derived therefrom not further pursued in the food balance sheet, available for human consumption during the reference period. FOOD of "maize", for example, comprises the amount of maize, maize meal and any "milk" relates to the amounts of milk available for human consumption. FOOD of milk during the reference period, but not as butter, cheese or any other milk product provided for in the standardized food balance sheet.

## Per Caput Supply

The columns under this heading give estimates of per caput food supplies available for human consumption during the reference period in terms of quantity, caloric value and protein and fat content. Calorie supplies are reported in kilocalories. The traditional unit of calories is being retained for the time being and until such time as the proposed "kilojoule" gains wider acceptance and understanding (1 calorie = 4.19 total supplies available for human consumption (i.e. FOOD) by dividing the quantities of FOOD by the total population actually partaking of the food

supplies during the reference period, i.e., the present-in-area (de facto) population within the present geographical boundaries of the country. In other words, nationals living abroad during the reference period are excluded, but foreigners living in the country are included. Adjustments are made wherever possible for part-time presence or absence, such as temporary migrants and tourists, and for special population groups not partaking of the national food supply, such as aborigines living under subsistance conditions (if it has not been possible to include subsistance production in the food balance sheets) and refugees supported by special schemes (if it has not been possible to allow for the amounts provided by such schemes under imports). In almost all cases, the population figures used are the mid-year estimates published by the United Nations Population Division.

Per caput supply figures shown in the food balance sheets therefore represent only the average supply available for the population as a whole and do not necessarily indicate what is actually consumed by individuals. Even if they are taken as approximation to per caput consumption, it is important to bear in mind that there could be considerable variation in consumption between individuals.

In many cases commodities are not consumed in the primary form in which they are presented in the standardized food balance sheet, e.g. cereals enter the household mainly in processed form like flour, meal, husked or milled rice. To take this fact into account, the caloric value and the protein and fat content shown against primary commodities in the standardized food balance sheets have been derived by applying the appropriate food composition factors to the quantities of the processed commodities (which are available in the ICS Agricultural Data Bank) and not by multiplying the quantities shown in the food balance sheet with the food composition factors relating to primary commodities.

For this purpose, considerable research was carried out to obtain additional information regarding the specifications of the food required for the choice of the appropriate food composition factors. For example, the choice of the food composition factors for wheat flour, among other factors, depends on the water content, the variety and the degree of milling. The choice of the corresponding factors for cheese depends on whether cheese is derived from whole milk, partly whole milk or skim milk from cows, sheep, goats, buffaloes and on whether the cheese is hard, semi-soft or soft. First-hand expert knowledge available in the FAO, both in the fields of nutrition and food technology, and available national, regional and international food composition tables proved to be of particular value in this respect. Whenever possible, regional food composition tables have been used. INCAP-ICNND: Food Composition Table for Use in Latin America; FAO: Food Composition Table for Use in East Asia; FAO: Food Composition Table for Use in Africa; FAO: Food Composition Tables for the Near East. For developed countries, the tables prepared by the USDA: Composition of Foods, Handbook No. 8 and by SOUCI, FACHMANN, KRAUT: Die Zusammensetzung der Lebensmittel (Nahrwert-Tabellen) were used. In addition, use was made of FAO's Food Composition Tables -Minerals and Vitamins - for International Use in the absence of any specific factors in the relevant regional tables.

For calories, protein and fat, a grand total and its breakdown into components of vegetable and animal origin is shown at the beginning of each food balance sheet. In addition, sub-totals are shown for the grand total excluding alcohol and for the various commodity groups.

## POPULATION COVERAGE

In general, the population data used are three-year averages of the mid-year estimates published for each country by the Population Division of the UN. In order to arrive at a more realistic picture of per caput food supply (see also notes on "Per Caput Supply" above), it was necessary, however, to deviate in some cases from this rule and to use different figures from those given by the United Nations.

The 146 countries for which data are published cover 94% of the population of developing countries, 100% of the population of developed countries and 95% of world population.

## UNITS AND SYMBOLS

In all cases, the metric system has been applied. The units used are given in the heading of the food balance sheets themselves. Data are recorded either in thousand metric tons or metric tons. Figures of per caput food supply are shown in kilograms per year, grams per day, the caloric value in numbers of kilocalories per day, the protein and fat

Figures have been rounded individually to the smallest unit shown; independent of totals of lines or columns; this procedure may cause slight differences in the totals.

The symbols used in the tables are:

NES Not elsewhere specified or included

To divide the decimals from the whole number, a period (.) is ( - )

In the column STOCK CHANGES, the sign "-" indicates net decreases in stocks and in the column PROCESSED TRADE (E-I) it denotes net imports.

A blank space indicates that no data are available, that the quantity is either negligible (i.e., less than half of the reporting unit) or nil, or that the entry is not applicable.

#### LIST OF COMMODITIES BY MAJOR FOOD GROUPS

GRAND TOTAL VEGETABLE PRODUCTS ANIMAL PRODUCTS

GRAND TOTAL EXCL ALCOHOL

CEREALS

PADDY RICE BARLEY MAIZE FOR POP CORN RYE MILLET SORGHUM QUINOA FONIO TRITICALE CANARY SEED MIXED GRAIN CEREALS NES PREPARED CEREALS NES

ROOTS AND TUBERS

POTATOES

POTATO TAPIOCA SWEET POTATOES YAUTIA TARO COCOYAM ROOTS AND TUBERS NES FLOUR OF ROOT AND TUBERS

SUGARS AND HONEY

SUGAR BEETS SUGAR CROPS NES RAW SUGAR SUGAR CONFECTIONERY GLUCOSE AND DEXTROSE SUGARS AND SYRUPS NES HONEY

PULSES

DRY BEANS DRY BROAD BEANS DRY PEAS CHICKPEAS DRY COW PEAS PIGEON PEAS LENTILS BAMBARA BEANS VETCHES LUPINS PULSES NES

NUTS AND OILSEEDS

BRAZII. NUTS CASHEW NUTS CHESTNUTS ALMONDS WALNUTS PISTACHIOS HAZELNUTS FILBERTS NUTS NES PREPARED NUTS SOYBEANS GROUNDNUTS IN SHELL COCONUTS PALM KERNELS OLIVES KARITE NUTS SHEANUTS CASTOR BEANS SUNFLOWER SEED RAPESEED TUNG NUTS SAFFLOWER SEED SESAME SEED MUSTARD SEED POPPY SEED

MELONSEED TALLOWTREE SEEDS KAPOK FRUIT KAPOKSEED COTTONSEED LINSEED HEMPSEED OILSEEDS NES

VEGETABLES ARTICHOKES ASPARAGUS LETTUCE SPINACH TOMATOES

GREEN CHILLIES PEPPERS GREEN ONIONS SHALLOTS DRY ONIONS

GREEN BEANS GREEN PEAS STRING BEANS CARROTS OKRA

MUSHROOMS CAROBS

FROZEN VEGETABLES

VEGETABLES IN VINEGAR

PLANTAINS ORANGES APPLES PEARS QUINCES APRICOTS SOUR CHERRIES CHERRIES
PEACHES AND NECTRINES

FIGS MANGOES AVOCADOS PINEAPPLES

PAPAYAS FRESH TROPICAL FRUIT NES

FLOUR OF FRUIT

CAULIFLOWER

PUMPKINS, SQASH, GOURDS CUCUMBERS AND GHERKINS EGGPLANTS

GARLIC

GREEN BROAD BEANS

GREEN CORN MAIZE FRESH VEGETABLES NES

VEGETABLES TEMP PRESERVE DRIED VEGETABLES NES CANNED VEGETABLES NES VEGETABLE JUICE NES

PREPARED VEGETABLES NES

FRUITS

BANANAS TANGERINES MANDARINES LEMONS AND LIMES GRAPEFRUIT AND POMELO

PLUMS STONE FRUIT NES POME FRUIT NES STRAWBERRIES RASPBERRIES GOOSEBERRIES CURRANTS BLUEBERRIES CRANBERRIES BERRIES NES

GRAPES WATERMELONS MELONS CANTELOUPES

DATES PERSIMMONS CASHEWAPPLES

DRIED TROPICAL FRUIT NES FRESH FRUIT NES FRUIT JUICE NES DRIED FRUIT NES PREPARED FRUIT NES

MEAT AND OFFALS BEEF AND VEAL

MEAT EXTRACTS

BEEF PREPARATIONS EDIBLE OFFALS OF CATTLE BUFFALO MEAT EDIBLE OFFALS OF BUFFALO MUTTON AND LAMB EDIBLE OFFALS OF SHEEP GOAT MEAT EDIBLE OFFALS OF GOATS PIGMEAT EDIBLE OFFALS OF PIGS CHICKEN MEAT OFFALS LIVER OF CHICKENS DUCK MEAT OFFALS LIVER OF DUCKS GOOSE MEAT OFFALS LIVER OF GEESE TURKEY MEAT OFFALS LIVER OF TURKEYS POULTRY MEAT NES HORSEMEAT EDIBLE OFFALS OF HORSES MEAT OF ASSES MEAT OF MULES MEAT OF CAMELS EDIBLE OFFALS OF CAMELS

EGGS

HEN EGGS EGGS EXCL HEN

RABBIT MEAT GAME MEAT

OFFALS NES

DRIED MEAT NES

FISH AND SEAFOOD

FRESHWATER DIADROM DEMERSAL FISH PELAGIC FISH MARINE FISH NES CRUSTACEANS MOLLUSCS CEPHALOPODS AQUATIC MAMMALS MEAT AQ MAMMALS PREPARED NES AQUATIC PLANTS DRIED AQUATIC PLANTS

MILK

WHOLE COW MILK FRESH CREAM SKIM COW MILK DRY SKIM COW MILK FRESH WHEY WHOLE COW MILK CHEESE PROCESSED CHEESE SHEEP MILK SKIM SHEEP MILK CHEESE OF SHEEP MILK BUFFALO MILK CHEESE OF BUFFALO MILK GOAT MILK CHEESE OF GOAT MILK

OILS AND FATS

CAMEL MILK

VEGETABLE OILS AND FATS

RICE BRAN OIL MAIZE OIL SOYABEAN OIL GROUNDNUT OIL COCONUT OIL PALM KERNEL OIL PALM OIL OLIVE OIL OLIVE RESIDUE OIL KARITE NUT BUTTER CASTOR BEAN OIL SUNFLOWER SEED OIL RAPESEED OIL

THE OTL SAFFLOWERSEED OIL SESAME SEED OIL MUSTARD SEED OIL POPPY SEED OIL KAPOKSEED OIL COTTONSEED OIL LINSEED OIL STILLINGIA OIL HEMPSEED OIL HYDROGENATED OILS MARGARINE & SHORTENING LIQUID MARGARINE VEGETABLE TALLOW VEGETABLE OILS NES

ANIMAL OILS AND FATS

CATTLE FAT CATTLE BUTCHER FAT BUFFALO FAT CAMEL FAT OTHER CAMELIDS FAT SHEEP FAT GOATS FAT PIGS FAT PIG BUTCHER FAT LARD POULTRY FAT ANIMAL OILS & FATS NES TALLOW FAT PREPARATIONS NES BUTTER OF COW MILK GHEE FROM COW MILK BUTTER OF BUFFALO MILK GHEE FROM BUFFALO MILK BUTTER GHEE OF SHEEPMILK BUTTER OF GOAT MILK FRESHWATER FISH BODYOILS FRESHWATER LIVER OILS DEMERSAL FISH BODYOILS DEMERSAL FISH LIVER OILS PELAGIC FISH BODY OILS PELAGIC FISH LIVER OILS MARINE FISH NES BODYOILS MARTNE NES LIVER OILS

SPICES

PEPPER WHITE/LONG/BLACK ANISE BADIAN FENNEL PIMENTO, ALLSPICE VANILLA CINNAMON (CANELLA) CLOVES. WHOLE & STEMS NUTMEG MACE CARDAMONS GINGER PEPPERMINT SPICES NES

AQUATIC MAMMALS OILS

STIMULANTS

CREEN COFFEE COFFEE SUTSTITUTES COCOA BEANS CHOCOLATE PRODUCTS NES TEA TEA NES BEVERAGES NON-ALCOHOLIC KOLANUTS
ARECA NUTS (BETEL) HOPS CHICORY ROOTS

ALCOHOLIC BEVERAGES

BEER OF BARLEY BEER OF MAIZE BEER OF SORGHUM WHEAT FERMENTED BEVERAGE RICE FERMENTED BEVERAGES WINE DISTILLED ALCOHOL FERMENTED BEVERAGES NES

## STANDARDIZED FOOD BALANCE SHEET

84/04/02

	PRO-	I 8-	STOCK	RY-	UNI	TS= 1000	5	29 SEPTEMBER 198									
	DUC-	PORTS		POPTS	CESS-	TIC		DONES		UTILIZ			P	ER CAPU	T SUP	PLY	
			623		TRADE	SUPPLY	PEED	SEEL	HAND	PACTUR:	E WAST	E PCO	D KIL	0-	PER DA	7	
INTER STATE STATE					(E-I)				FOOD	POOD				R GRANS	CALO		PA
GRAND TOTAL										USE						GRAMS	
VEGETABLE PRODUCTS AN IHAL PRODUCTS GRAND TOTAL EXC ALCOHOL															2890 2484	74.9 50.9	69.9
CEREALS															406 2835	74.6	69.9
WHEAT	100												173.4	475.1	1443	37.3	12.8
PADDY RICE	2749 527	1033	-20 10	12	-93	3784	368	91			194	3130	44.8	122.8	323	9.0	
BARLEY	512 11967	103 2530	-12			615 627	263	10 15	329		27	55			56	1.1	1.0
RYE OATS		1	866	1	-3	13633	1890	143	2621		607	8373	120.0	328.9	1061	27.1	11.6
SORGHUM	4939	2107				7046	34 6881	23			. 1	25	. 4	1.0	2	.1	
CAMARY SEED CEREALS MES	. 5	45			- 12	5	5	23			141				171	1777	
ROOTS AND TUBERS		43			- 12	57	45					12	. 2	.5	79 to 91		
CASSAVA													13.7	37.5	26		
POTATOES	25 985	4		1		25 988					2	22	.3	. 9	1		
SWEET POTATOES ROOTS AND TUBERS HES	51 55	- 1				52		58			99	831	11.9	32.7	22	.4	
SUGARS AND HONEY	. 33					55					3	52		2.0	2 2		
						1							43.7	119.7	426		
SUGAR CANE	35324 2810	305	134		2	35324	706		30586	3679	353						
NONCENTRIFUGAL SUGAR SLUCOSE AND DEXTROSE	68		134	34	-3	2950 68				5		2944		115.7	412		
ONEY	55 65	1	-1	44		55 23				45		68 10	1.0	2.7	10		
PULSES				• •		23						23	.3	. 9	3		
DRY BEANS	4007												17.6	48.3	169	9.3	.9
DRY BROAD BEARS	1027	313	150	2		1188		56			70	1063	15.2	41.5	147	7.9	. 7
DRY PEAS CHICK-PEAS	286	2		84		7					3	56	- 8	2.2	6	-4	
ENTILS ULSES NES	11	. 1		04		12	91	8			14	88	1.3	3.5	12	.7	.2
UTS AND OILSEEDS		12		241		12	1				•	12	.2	. 5	2	:1	
												i .	3.4	9.4	24	. 7	2.1
L MONDS ALKUTS	4	1		_		1						1					
UTS MES OYBEANS	29 575	1				30						29	- 1	. 2	1		. 1
ROUNDNUTS IN SHELL OCONUTS	74	737	-16	1	-4	1268 93	113	12	1100		43		. 4	1. 2	4	. 1	- 4
ALM KERNELS	851 8			1	1	849			741		8	75 108	1.1	3.0 4.3	11 .	.5	.9
LIVES ASTOR BEAMS	26					26			8			20	.3	. 8	2	•	
UNFLOWER SEED APESEED	7	278	27			258			250	9			••	••	2		. 2
APPLOWER SEED	482	9	-38			12 520		13	11		.1						
ESAME SEED USTARD SEED	145	1	-6	69		82		2	65	10	57 16						
OTTONSEED Inseed	549 6	53	33			569		11	297	261		1					
EGETABLES	•	9	8			7			6								
													31.6	86.6	21	. 9	. 2
BBAGES PARAGUS	63 19			4		59					3	56	.8	2.2			
STTUCE	46	1		4		15					1	14	. 2	. 5			
ULIFLOWER	1529 10			356	12	1161					64	1097	15.7	1.9 43.0	8	. 3	
CUMBERS AND GHERKINS	114 191		8	146		70 37					6	65	.1	2.6	1		
GPLANTS BEN CHILLIES PEPPERS	24 458		•	17		7			2		10	25 6	- 4	1.0			
REN OWIONS, SHALLOTS	352	2		15 54		300			63		23 18	357	5.1	14.1	4	. 2	
BEN BEANS	50 35			7 12		43 23			5		2	35	4.1	11.1	2	. 1	
EEN PEAS RROTS	66 86			5		61					7	19 55	- 3	2.2	1		
ESH VEGETABLES NES	92	5		43		83 54					5	79 50	1.1	3.1	i		
UIT																	
NAHAS	1379			13	,	366					170			251.0		1.4	- 8
ANGES NGERINES HANDARINES	1877 126	1				850					188	1662	16.9 23.8	46.4 65.3	31 16	.5	- 1
MORS AND LIMES APEFRUIT AND PONELO	584			12	7	104 565					13 58	92 507	1.3	3.6	1		
PLES ARS	135 279	3		14		121 292					13	108	1.5	19.9	5	- 1	
INCES	38 24	5				43					28	40	3.6	10.0	5		
RICOTS ACHES AND NECTABINES	5					5					2	22	. 3	. 8			
JAS	68	6		-	-5	183 73					18	165	2.4	6.5	4	. 1	
ONE FRUIT NES	91	1		9		1			25		7	66	. 9	2.6	1		
ipes Cernelons	484		-1	7		82 467			35 283		9	38 184	2.6	1.5	2		
ONS CANTALOUPES	329			1 0 3 1 5 2		322 177					43 33	280 144	4.0	11.1	1		
GOES	16 600			13	-1	17 587					2	15	2.1	5.7	1		
44											60	528	7.6	20.8	6	. 1	

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OPULATION 69769000						UNI	CO RAGE 197 S= 1000	GEIVI	C TONS						OF 2	1903		
	PRO-	T M-	ST	OCK	EX-	PROC-			DOMPST	TC II	TTLTZAT	TON		PER	CAPUT	SUPP	LY	
	DUC- TION	POFTS	CH	AN-	PORTS	CESS-	TIC SUPPLY	FEED	SEED	MANUP	ACTURE	WASTE			PI			
<b>7</b> 47	F FREE HETT					TRADE (E-I)				FOOD USE	NON			/YEAR	GRAMS	RIES NOS	TEIN GRAMS	GRAMS
VOCADOS	414				6							41	367 348	5.2	14.4	6 3	.1	.5
INEAPPLES ATES	509 1 218				39	60	410 1 218			11		51 22	196	2.8	7.7	2	100	
APAYAS RESH TROPICAL PRUIT HES RESH FRUIT HES	196 36						196 36			28		20	33	2.1	1.3	1		72
EAT AND OFFALS														25.4	69.6	148	9.0	12.1
REF AND YEAL DIBLE OFFALS OF CATTLE HUTTON AND LAMB DOAT MEAT FIGHEAT	600 106 16 20 467	1			2	11	590 106 17 20 467 43						590 106 17 20 468 44	8.4 1.5 .2 .3 6.7	23.1 4.2 .7 .8 18.3 1.7	50 4 1 61 2	.8 .1 .1 2.0	5.
DIBLE OFFALS OF PIGS	16 397		5				403						403	5.8	15.8	1 2	1.6	1.
DUCK HEAT FURKEY HEAT BORSEHBAT DPFALS HES	31 51		4		8		31 43 24						31 43 24	.6	1.2	2	.3	
ec GS														7.9	21.7	29	2.2	
HEN EGGS	636		3			-4	643		26			64	553	7.9	21.7	29	2.2	
PISH AND SEAFOOD														10.5	28.8	19	2.9	
PRESHWATER DIADRON DENERSAL FISH PELAGIC FISH HARIME FISH NES CRUSTACEANS	51 79 691 233		6		10		233	54					51 78 295 189 42	1.1 4.2 2.7 .6	2.0 3.0 11.5 7.3 1.7	10 5 1	1.3	13
HILK												240	5468	78.4	214.7	135		
MHOLE COW MILK SKIM COW MILK WHOLE COW MILK CHEESE GOAT MILK CHEESE OF GOAT MILK	6956 58 6 29	7	2			-139 -1199		45	i3	1280		348 15	1327 69 96 30	19.0	52.1 2.7 3.8 1.2	18 12 3 2	1.6 .8 .1	1.
OILS AND PATS									,					10.9	30.0	262	1 1 1 1 1 1 1 1 1 1	1 7.
VEGETABLE OILS AND FATS														9.3		226		25.
HAIRE OIL SOYA BEAN OIL GROUDDHUT OIL PALM OIL SUMPLOWER SEED OIL RAPESEED OIL		8 1 2 7 5	2	6			3 207 2 9 95 4			21			3 186 2 9 95 3 91	1.4	3.7	64 1 3 3 1 3 1		3.
SAFFLOWER OIL SESAME SEED OIL COTTON SEED OIL VEGETABLE OILS NES HYDROGENATED OILS	20	7	8 2 2	-9			29 56 8 207 27			4	6 21		29 11 8 187 27	.1 2.7	7.3	66	3	7
MARGARINE, SHORTENING ANIHAL OILS AND PATS														1.6	4.4	3 (	6	4
LARD TALLOW		31	14 71 23				102				87		48 15 48		2 .6	5	5	1
BUTTER OF COW HILK SPICES															1.3	3	3 .	2
PEPPER, WHITE/LONG/BLACK ANISE, BADIAN, FENNEL PIMENTO, ALLSPICE CIWNAHON (CANELLA)		2 1 34	1	1		3 6	2	1					21		4 1. 1 .	1		1
STINULANTS														1.				.3
GREEN COFFEE COCOA BEANS HOPS		29 35	1	-21 2		1	8 10				1	. 7	3			2	1 .	1
ALCOHOLIC BEVERAGES														40.				. 3
BEER OF BARLEY		99 52	15			70	263 6						263			6	2 16	. 3